IN THE CLAIMS

1. (currently amended) A camera system for capturing images of a whiteboard comprising:

a boom positioned above a whiteboard;

a single view camera mounted to the distal end of said boom and adjusted such that [[the]] a tilt angle of [[the]] a lens with respect to [[the]] a sensor plane of the single view camera is zero so as to capture an in focus uniform resolution image of said entire whiteboard, wherein the in focus uniform resolution image of said entire whiteboard is captured by.

inputting the parameters of the whiteboard comprising whiteboard width, whiteboard height, the height of the whiteboard as imaged by the single view camera, the horizontal distance between the whiteboard and the center of projection of the single view camera, the height of the image sensor, and vertical distance between the center of projection of the single view camera and the top of the whiteboard; and

setting a tilt angle of the image sensor with the vertical axis to be approximately parallel with respect to the plane of the whiteboard;

computing the focal length of the single view camera using the input parameters of the whiteboard and the set tilt angle so as to capture an in focus, uniform resolution image of the whiteboard.

2. (cancelled)

3. (original) The camera system of Claim 1 further comprising a mounting device for mounting said boom to be positioned above said whiteboard.

4. (original) The camera system of Claim 3 wherein said mounting device mounts on a rail at the top portion of said whiteboard.

5. (original) The camera system of Claim 3 wherein said mounting device mounts on a surface above the surface the whiteboard is mounted to.

6. (original) The camera system of Claim 3 wherein said system comprises more than one type of device for mounting said boom to be positioned above said whiteboard and wherein said types of devices for mounting said boom to be positioned above said whiteboard are interchangeable.

7. (original) The camera system of Claim 1 further comprising a microphone device for capturing audio synchronized with each image captured by said view camera.

8. (original) The camera system of Claim 7 wherein said microphone device is a microphone array.

9. (original) The camera system of Claim 8 wherein said audio captured by said microphone array is used for sound source localization.

10. (original) The camera system of Claim 7 wherein said microphone device is used to improve the sound quality of a speaker by filtering sound from only the direction of the speaker.

11. (currently amended) The camera system of Claim 1 further comprising using a computer to enhance the whiteboard image.

12. (original) The camera system of Claim 11 wherein said computer enhances said whiteboard image by white-balancing the image of the whiteboard to provide an image of the whiteboard with uniform white background color.

13. (original) The camera system of Claim 11 wherein said computer enhances said whiteboard image by removing shadows on the whiteboard in the image.

14. (original) The camera system of Claim 11 wherein said computer enhances whiteboard image by segmenting non-whiteboard objects from the image of the whiteboard.

15. (currently amended) A process of capturing images of a whiteboard, comprising the following process actions:

positioning a single view camera above a whiteboard at the end of a boom so as to capture images of a desired portion of the whiteboard;

adjusting the single view camera such that the tilt angle of the lens with respect to the sensor plane of the camera is zero before capturing said images to provide uniform resolution in-focus images of said whiteboard, wherein adjusting the single view camera comprises,

computing the focal length that will provide said uniform resolution and in-focus images of the whiteboard, wherein computing the focal length comprises:

inputting the whiteboard width, whiteboard height, the height of the whiteboard as imaged by the single view camera H_{wb}, the horizontal distance D between the whiteboard and the center of projection of the single view camera (C), the height of the image sensor H_s, and vertical distance between C and the top of the whiteboard H_c;

setting a tilt angle α of the image sensor with the vertical axis to be approximately parallel with respect to the plane of the whiteboard; and

computing the focal length as

$$f = H_s \csc(\theta)\sin(90+\alpha-\theta-\tan^{-1}(H_c/D))\sin(90-\alpha+\tan^{-1}(H_c/D))$$

wherein $\theta = 90-(\tan^{-1}(H_c/D)+\tan^{-1}(D/(H_{wb}+H_c)))$; and

automatically setting the single view camera's focal length to the computed focal length.

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (original) The process of Claim 15 further comprising the process action of sending said images to a server that broadcasts or records the images

20. (original) The process of Claim 15 further comprising the process action of capturing audio that is synchronized with said captured images.

21. (original) The process of Claim 20 further comprising the process action of sending said images to a server that broadcasts or records the images and synchronized audio.

22. (previously presented) A computer-readable medium having computer-executable instructions for viewing or recording images of a whiteboard using a view camera positioned to have a view of a whiteboard and adjusted such that the tilt angle of the lens with respect to the sensor plane of the camera is zero so as to capture an in focus, uniform resolution image of the whiteboard, said computer executable instructions comprising:

inputting the parameters of the whiteboard comprising whiteboard width, whiteboard height, the height of the whiteboard as imaged by the camera, the horizontal distance between the whiteboard and the center of projection of the camera, the height of the image sensor, and vertical distance between the center of projection of the camera and the top of the whiteboard; and

setting a tilt angle of the image sensor with the vertical axis to be approximately parallel with respect to the plane of the whiteboard;

computing the focal length of the camera using the input parameters of the whiteboard and the set tilt angle so as to capture an in focus, uniform resolution image of the whiteboard.

23. (currently amended) A process of capturing images of a whiteboard from multiple vantage points, comprising the following process actions:

positioning more than one single view camera above a whiteboard and at a fixed distance from a whiteboard so as to view the whiteboard; and

adjusting each of said single view cameras so that ~~each single view camera such that~~ the tilt angle of the lens with respect to the sensor plane of the single view camera is zero in order to capture a uniform resolution, in-focus images of said entire whiteboard, wherein adjusting each of said single view cameras further comprises for each single view camera:

inputting the parameters of the whiteboard comprising whiteboard width, whiteboard height, the height of the whiteboard as imaged by the single view camera, the horizontal distance between the whiteboard and the center of projection of the single view camera, the height of the image sensor, and vertical distance between the center of projection of the single view camera and the top of the whiteboard; and

setting a tilt angle of the image sensor with the vertical axis to be approximately parallel with respect to the plane of the whiteboard;

computing the focal length of the camera using the input parameters of the whiteboard and the set tilt angle so as to capture an in focus, uniform resolution image of the whiteboard.

24. (currently amended) The process of Claim 23 further comprising the process action of:

simultaneously capturing images with each of said single view cameras; and

selecting an image that provides an unobstructed view of the whiteboard from among the simultaneously captured images.

25. (currently amended) A camera system for capturing images of a whiteboard comprising:

a single view camera positioned on the end of a boom mounted above a whiteboard and adjusted such that the tilt angle of the lens with respect to the sensor plane of the camera is zero so as to capture an in-focus uniform resolution image of a whiteboard, wherein the in focus uniform resolution image of said entire whiteboard is captured by.

inputting the parameters of the whiteboard comprising whiteboard width, whiteboard height, the height of the whiteboard as imaged by the camera, the horizontal distance between the whiteboard and the center of projection of the single

view camera, the height of the image sensor, and vertical distance between the center of projection of the single view camera and the top of the whiteboard; and

setting a tilt angle of the image sensor with the vertical axis to be approximately parallel with respect to the plane of the whiteboard;

computing the focal length of the single view camera using the input parameters of the whiteboard and the set tilt angle so as to capture an in focus, uniform resolution image of the whiteboard.

26. (cancelled)

27. (currently amended) The camera system of Claim 25 wherein said single view camera is mounted on a table and positioned so as to have a view of said whiteboard.

28. (currently amended) The camera system of Claim 27 wherein said single view camera is mounted on a wall and positioned so as to have a view of said whiteboard.

29. (original) The computer-readable medium of Claim 22 wherein inputting the parameters of the whiteboard further comprises inputting whiteboard width, whiteboard height, the height of the whiteboard as imaged by the camera H_{wb}, the horizontal distance D between the whiteboard and the center of projection of the camera (C), the height of the image sensor H_s, and vertical distance between C and the top of the whiteboard H_c; and

wherein setting the tilt angle further comprises setting a tilt angle α of the image sensor with the vertical axis to be approximately parallel with respect to the plane of the whiteboard;

and wherein computing the focal length further comprises computing the focal length as $f = H_s \csc(\theta)\sin(90+\alpha-\theta-\tan^{-1}(H_c/D))\sin(90-\alpha+\tan^{-1}(H_c/D))$

wherein $\theta = 90-(\tan^{-1}(H_c/D)+\tan^{-1}(D/(H_{wb}+H_c)))$.